Amendment

Kindly amend the claims as follows:

1. (currently amended) A lighting system, comprising:

(a) an LED;

(b) a current regulator circuit (i) in communication with said LED and (ii) comprising: (A) a drive unit in series with said LED; (B) a current sensor in communication with said drive unit and said LED; (C) an adjusted voltage source with an output; and (D) a comparison unit in communication with said drive unit, said current sensor, and said adjusted voltage source wherein said comparison unit is operable to generate an output to said drive unit that generates a voltage across said current sensor approximately equal to that of said output of said adjusted voltage source; ~~and~~

(c) a calibration circuit in communication with said current regulator; and

(d) a controller in communication with said comparison unit, wherein said controller is operable to generate a signal to activate or deactivate said comparison unit.

2. (cancelled)

3. (currently amended) The lighting system of claim 21, wherein said comparison unit is an operational amplifier.

4. (cancelled)

5. (currently amended) The lighting system of claim 2~~1~~, further comprising a reference voltage source, and wherein said adjusted voltage source receives said reference voltage source as an input.

6. (original) The lighting system of claim 5, wherein said adjusted voltage source is a digital-to-analog converter.

7. (currently amended) The lighting system of claim 5, ~~further comprising a controller in communication with said adjusted voltage source, and~~ wherein said controller is operable to send a signal to said adjusted voltage source to modify said output of said adjusted voltage source.

8. (original) The lighting system of claim 7, further comprising a storage unit in communication with said controller, wherein said storage unit comprises calibration data and said controller is operable to receive said calibration data from said storage unit and send said calibration data to said adjusted voltage source to modify said output of said adjusted voltage source.

9. (original) The lighting system of claim 8, wherein said storage unit is an EEPROM.

10. (currently amended) A lighting system, comprising:

(a) a plurality of LED arrays, wherein each of said LED arrays is operable to generate light of a distinct color, at least two of said LED arrays are operable to generate light of two distinct colors, and wherein said plurality of LED arrays are operable together to generate light of a spectrum of colors;

(b) a calibration circuit in communication with each of said LED arrays, wherein said calibration circuit (i) is operable to regulate ~~the~~a current applied to each of said LED arrays in order to produce light from each of said LED arrays of a standard temperature and intensity; and (ii) comprises: (A) a drive unit in series with each of said LED arrays; (B) a current sensor in communication with each said drive unit and each said LED array; (C) an adjusted voltage source with an output; and (D) a comparison unit in communication with each said drive unit, said current sensor, and said adjusted voltage source wherein said comparison unit is operable to generate an output to each said drive unit that generates a voltage across said corresponding current sensor approximately equal to that of said output of said corresponding adjusted voltage source; and

(c) a controller in communication with said calibration ~~unit~~circuit and operable to generate a signal to activate or deactivate said comparison unit.

11. (cancelled)

12. (currently amended) The lighting system of claim ~~11~~10, wherein said comparison unit is an operational amplifier.

13. (cancelled)

14. (currently amended) The lighting system of claim ~~11~~10, further comprising a reference voltage source, and wherein said adjusted voltage source receives said reference voltage source as an input.

15. (original) The lighting system of claim 14, wherein said adjusted voltage source is a digital-to-analog converter.

16. (original) The lighting system of claim 14, wherein said controller is in communication with said adjusted voltage source, and wherein said controller is operable to send a signal to said adjusted voltage source to modify said output of said adjusted voltage source.

17. (original) The lighting system of claim 16, further comprising a storage unit in communication with said controller, wherein said storage unit comprises calibration data and said controller is operable to receive said calibration data from said storage unit and send said calibration data to said adjusted voltage source to modify said output of said adjusted voltage source.

18. (original) The lighting system of claim 17, wherein said storage unit is an EEPROM.

19. (currently amended) A method of controlling a lighting system, wherein said method comprises the steps of:

(a) applying current to an LED;

(b) measuring the voltage across a current sensor in series with the LED;

(c) comparing the voltage across the current sensor with an adjusted reference voltage; ~~and~~

(d) emitting an electrical signal to a drive unit in series with the LED and the current sensor to cause the voltage across the current sensor to approximately equal the adjusted reference voltage; and

(e) emitting a signal from a controller to turn on and off the electrical signal to the drive unit.

20. (cancelled)

21. (original) The method of claim 19, further comprising the step of generating the adjusted reference voltage by modifying a reference voltage based on a calibration value.

22. (currently amended) The method of claim 21, wherein said step of generating the adjusted reference voltage is performed by a digital-to-analog converter, and further comprising the steps of:

(a) emitting a digital signal from athe controller to the converter, wherein the digital signal comprises an adjustment value; and

(b) transforming the digital signal comprising the adjustment value into an adjusted reference voltage by modifying the reference voltage by the adjustment value.

23. (original) The method of claim 22, further comprising the steps of:

(a) storing the adjustment value in a storage unit; and

(b) reading said adjustment value from said storage unit to said controller.

24. (original) A method of testing a light module in a lighting system, said method comprising the steps of:

(a) measuring a value for a light output from the light module with a light sensor;

(b) transmitting the light output value from the light sensor to a processor;

(c) transmitting a signal from the processor to the light module to adjust a calibration value of the light module in response to the light output value, in order to adjust the light output value into a prescribed range;

(d) measuring a value for a light output from the light module with the light sensor;

(e) transmitting the light output value from the light sensor to a processor; and

(f) comparing the light output value to the prescribed range to confirm that the light output value from the light module is within the prescribed range.

25. (currently amended) The method of claim 24, further comprising the step of adapting a test fixture ~~adapted~~ to receive the light module and ~~configured to~~ pass communications between the processor and the light module.

26. (original) The method of claim 25, further comprising the step of transmitting at least one of a serial number and manufacturing data from the processor to the light module.

27. (new) The lighting system of claim 1, further comprising a plurality of LED arrays operable together to generate light of a spectrum of colors.

28. (new) The method of claim 19, further comprising the step of operating a plurality of LED arrays together to generate light of a spectrum of colors.